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ARMS Panel Plus Pilot Study:

Results from the 1998-1999 ARMS Panel Plus Pilot Study

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ARMS PANEL PLUS PILOT STUDY: Results from the 1998-1999 ARMS Panel Plus Pilot Study. By Kathleen E. Ott, Data Quality Research Section, Research and Development Division, National Agricultural Statistics Service, U.S. Department of Agriculture, Fairfax, Virginia 22030. December 1999. Staff Report Number RD-99-05.

ABSTRACT

The Agricultural Resource Management Study (ARMS) Phase III collects specific information from farm operators regarding their rates of production, expenses, returns, and profits. An ARMS panel plus pilot study was conducted in two states using the active ARMS Phase III sample. The focus was placed on convincing a panel of producers to cooperate for a three year period. This first year of the longitudinal study focused on operator reaction to questions, the availability of the data provided, the types of records operators used to retrieve required information, and the feasibility of using alternative data collection strategies. In addition, respondents gave feedback on issues such as how reports help farmers and how to gain response from other operators.

In addition to ARMS data, information was collected from farm operations in Virginia and Missouri to assess the feasibility of using a longitudinal panel methodology for the ARMS. The panel study will continue over the next few years to gauge farm operation cooperation, enumerator actions, and costs. In general, with an intensive promotion effort up front, we can expect a similar, or only slightly lower response rate in the first year of a panel survey.

KEY WORDS

Agricultural Resource Management Study (ARMS); Longitudinal Surveys; Public Relations; Promotion.

This paper was prepared for limited distribution to the research community outside the U.S. Department of Agriculture.

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SUMMARY

Phase III of the Agricultural Resource Management Study (ARMS) is currently conducted annually with a new sample of farm operators selected each year. A new longitudinal panel survey methodology is under discussion. The proposed "Panel Plus" design would collect detailed economic information from a small panel of operators over a period of three years, while general economic information would be collected for a larger "plus" sample of operators that changes every year.

One of the components necessary for this design is long term farm operator cooperation for the panel sample. To assess the feasibility of a three year commitment from operators, a panel plus pilot study was conducted in Virginia and Missouri. A variety of new promotional ideas were used to obtain cooperation, farm operator opinions and attitudes were discussed, and data were collected using the current methodology and questionnaire.

Pilot enumerator response rates on the panel plus pilot sample were comparable to the regular ARMS sample completed by the same enumerators, indicating that the three year aspect of the study did not decrease response rate in this initial year. Response rates this year (1998) were higher than response rates for the 1997 survey year. This could be attributed to the overall increased public relations and promotion to enumerators.

Currently, less than 50% of the panel plus pilot farm operations use a formal ledger or computer record keeping system, with almost 20% of the operations completing the entire ARMS interview using no records at all. We found almost no sensitivity to individual survey questions, but did find that some questions are extremely difficult for respondents to answer. Many respondents are willing to try alternative data collection options, which should be explored further during next year's study.

INTRODUCTION

NASS and ERS are developing and evaluating a component of the Agricultural Resource Management Study (ARMS) that involves obtaining detailed information from a panel of producers across several consecutive years, while collecting more limited information from a larger group of producers. The reasons for investigating this approach to data collection are to decrease overall respondent burden and to provide longitudinal data.

Currently, approximately 17,000 farm operations across the country are selected for the ARMS sample. The sample is large enough to produce regional level estimates, but not state level estimates. In recent years, overall national response rates for this study have been about 65% (higher during the 1997 Census of Agriculture collection period).

The current ARMS program involves three phases, but the panel plus pilot study only involved sample from Phase III. The "panel plus" data collection procedure would involve selection of two ARMS samples for phase III data collection. The first sample would be called the "panel" and would include approximately 3500 operators who would annually provide detailed economic and management information for their operations over three consecutive years. The second sample would be called the "plus" and would include approximately 10,000 operations who would provide limited economic data needed for regional and national level estimation. The two samples would be linked using appropriate modeling techniques to produce regional estimates.

The following are critical for this strategy to be successful:

1. We are able to convince a panel of producers to cooperate for a three year period.
2. A "short" questionnaire is developed and accepted that will substantially reduce reporting burden on the national survey.
3. We are able to appropriately link data from the panel and the plus portion of the survey.
4. The combined panel plus survey is statistically representative of the farm population.

This paper addresses only the first element of the data collection strategy, and only the first year of the pilot study. The paper is divided into five sections. The first section deals with the public relations (PR) and publicity used for the panel plus pilot study, the second section contains data on the assessment of current survey methodology, the third section gives data on the exploration of alternative data collection techniques, and the fourth section contains respondent feedback on issues such as benefits of the survey, how NASS can help farmers, and how to get other farm operators to cooperate on this survey. The last section gives recommendations for future ARMS survey methodology and the continuation of the ARMS Panel Plus Pilot Study.

PUBLIC RELATIONS AND PUBLICITY

A small panel plus pilot study was conducted to look at ways to increase current response rates, investigate farm operator reaction to a three year study, and to examine alternative data collection options that may make reporting easier and less time consuming. A secondary objective was to assess the current questionnaire in

relation to respondent sensitivity, data availability and record keeping.

The panel plus pilot study was conducted using a sample of 96 farm operations in Missouri and Virginia. First, enumerators were selected to work on the project based on past experience as well as willingness to work closely with NASS headquarters and State Statistical Office (SSO) staff. Then, operations that were in the active ARMS sample in the counties where those enumerators worked were identified as ARMS panel plus pilot sample. Therefore, all operations in the panel plus pilot study were originally part of the ARMS sample and would have been interviewed for ARMS regardless of the pilot study. Four enumerators interviewed in Virginia where 47 pilot operations were selected, and six enumerators interviewed in Missouri where 49 pilot operations were selected. Most of these 10 enumerators were supervisors, and were also assigned regular ARMS interviews. Only the ARMS Phase 3, version 1, list frame sample was selected for the pilot study.

The four basic goals of the pilot study were to: (1) increase and retain response by promoting the ARMS survey to NASS and NASDA personnel as well as to respondents, (2) determine the pros and cons of current data collection methodology, (3) investigate the possibility of using new data collection options, and (4) get feedback from respondents regarding their opinions, feelings, and ideas about the ARMS. After considering numerous ideas and incentives, the following were used for the public relations and publicity aspect of the ARMS pilot study. Ideas are divided into promotion within NASS and NASDA, and promotion with respondents.

Promotion Within NASS/NASDA

1. Support of management - the division director of Survey Management Division was supportive of the pilot study throughout its planning and implementation. She attended many group meetings and spoke about the pilot at seminars, conferences, and meetings.
2. Selected experienced enumerators - we intentionally selected some of the enumerators with the best response rates in each state. We wanted to select people who were willing to try new ideas as well as offer strategies and feedback on gaining response.
3. Enumerator training school - the chair of the PR and Promotion team attended both enumerator training schools and presented a 2-3 hour training session on the panel data collection effort. The session gave enumerators background on the project, introduced new ideas that were being used, emphasized how ARMS data are used, and solicited feedback from enumerators.
4. Two person team - a two person team was assigned to interview each prospective respondent. The team consisted of one enumerator and one person from either the HQ offices or the SSO. Using this strategy, we hoped to emphasize the importance of ARMS and the pilot study.
5. Incentives - we provided a nylon bag to enumerators and a few token incentives to respondents.
6. Extra office effort - the State offices tried to emphasize that special attention be given to panel cases. They also focused on ARMS data uses as a way to show the importance of the overall survey.
7. Post survey meeting with enumerators - meetings were held with all the pilot enumerators after the survey was complete to get feedback, suggestions, and reactions to procedures. In order to encourage open

communication, no one from the state offices was present.

Promotion to Respondents

1. Build Rapport - one of the main objectives of the study is to look at building rapport between NASDA enumerators, NASS personnel, and respondents. In order to gain cooperation for three years, we thought this aspect of the interview procedures was key. One specific way to build this rapport is by assigning a personal interviewer to each pilot operation. In other words, interviews for all other NASS surveys at the panel operation will be done by the same enumerator.
2. Importance of ARMS Data - we wanted to stress the ways that NASS data are used so that respondents see how important the data are to farming.
3. New Data Collection Options - we collected respondent reactions to a variety of data collection options to investigate methods that could make reporting easier.

There are several points of contact we made with panel respondents. First, a *pre-survey package* was mailed to each operation containing a letter from the State statistician and an ARMS brochure. A *second pre-survey mailing* containing a letter from the State Commissioner of Agriculture and a one page handout showing data uses was sent a few days later. Although specifically mentioned by only 11 respondents, enumerators in both states thought this was a beneficial mailing. Support from the state agriculture department is seen as a good rapport building tool. If other states use this strategy, they should talk to the state commissioner's office about the possibility of questions and concerns about the survey

being directed to their office. Neither state agriculture office had any calls from this letter, but the possibility exists and should be expected.

Then, when the *enumerator called or visited* to set up an interview appointment or to do the actual interview, they offered the following promotional ideas:

- "Personal USDA contact" - This was a new concept tested out on ARMS pilot respondents. We offered Pilot farm operations (regardless of participation in the survey) a personal USDA contact. This person is the State statistician in each state (Steve Manheimer in VA and Hubert Hamer in MO).

The types of things the personal USDA contact could offer the respondent include: (1) his services to pilot study members in any way that would be beneficial to the respondent and under his control, (2) assistance with any other USDA program or agency if he is able, (3) information regarding agriculture in his state, (4) free publications that the agency produces, and (5) help with record keeping where appropriate.

Although any farm operator can call the State Statistician any time, we don't think they are aware of this resource. In trying to promote personal contact, we wanted to use the concept of a personal USDA contact to develop rapport with respondents, showing them that we are serious about helping them with agricultural issues and programs.

Each potential respondent (regardless of cooperation) was given a business card magnet containing all the office information and telling the respondent to identify themselves as an ARMS pilot respondent when they call.

- 1997 Census of Agriculture highlights and/or county profiles - these were given to potential respondents where interviewers thought it was appropriate. The highlights and profiles contain county level data which is often more interesting to individual operators.
- Post it pad - given to respondents as a token thank you incentive.

Once the enumerator set up an appointment, a *two person team* visited the operation. Along with the enumerator, we attempted to have an “evaluator” present at each panel interview. The enumerator was responsible for doing the interview and collecting ARMS Phase III data. The evaluator had a separate questionnaire for collecting record keeping information, respondent’s reaction to questions, availability of data, and ideas on customizing data collection. In addition, the evaluator asked some cognitive questions to assess the respondent’s attitudes. Of the 73 positive useable reports, there were 53 interviews done with an evaluator, 12 interviews and evaluations completed by the enumerator, and 8 interviews completed without any evaluation.

An example of the evaluator questionnaire is in Attachment A. It is basically the same as the enumerator questionnaire with the addition of columns on the right side for recording record keeping, reaction, and data availability information, and 3 pages of cognitive questions at the end.

In a post survey meeting, the Virginia enumerators expressed their surprise at the warm reception the operators gave to the “official” person from DC, or Richmond. They did not expect operators to be so open to this. Missouri enumerators

felt that it was beneficial to have a second person there to answer questions and allow respondents to air opinions and concerns. Virginia enumerators thought that respondents were more detailed and showed less sensitivity when an “official” person was present, while Missouri enumerators did not notice a difference.

Enumerators were asked to fill out a Refusal Information Sheet for any farm operator that refused to set up an interview appointment. Interviewers were asked to be as specific as possible, so that a follow up contact could be arranged as well as any future interview contacts for other surveys or next year’s ARMS. Refusals are summarized in the next section titled Response and Refusal Rates.

The enumerator and the State Statistician decided whether refusal follow-up was appropriate for the 15 refusals. Some were contacted by phone while others were not contacted at all. All 15 remained non-respondents for this enumeration period. Based on enumerator and office staff reaction to the refusal follow-up, more guidance and training should be given on how to carry out these contacts. Currently, there is no formal training or help given to encourage such contacts to operators who have said no on a previous occasion.

We plan to have several post interview contacts with pilot farm operations. A *thank you card* was sent by the state office to each respondent. An *Individualized Farm Analysis* will be given to some respondents in the fall. This will be a one page farm analysis that compares the respondent’s farm operation to other operations in their region on the major economic components of the survey. Other possible post interview contacts include refusal letters, holiday cookies, customized

record keeping materials, postcards, and other periodic contact. Enumerators could make "PR contacts" where they do not collect data, but just visit pilot operators.

Finally, each pilot respondent will only be contacted by the enumerator that interviewed them for the pilot. This will help the enumerators build rapport with individual operators.

Response and Refusal Rates

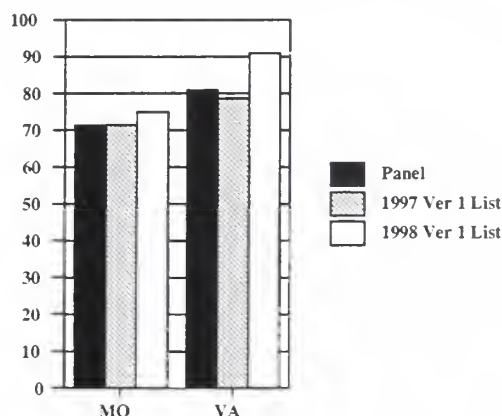
A total of 73 questionnaires were considered positive useable for the ARMS panel. Only 65 of these questionnaires were used for evaluating the cognitive questions and alternative data collection strategies (and smaller numbers for individual questions, depending on the number of respondents who answered the specific question). This number is smaller than the number of completed panel interviews because some interviews were done without either an evaluator or interviewer completing the cognitive evaluation questions.

The average time for the total interview, including the evaluator section was 123 minutes. The regular interview average was 106 minutes and the evaluator section averaged 22 minutes. These averages are based on only those questionnaires where the interviewer or evaluator had recorded times. The average time for all other ARMS Version 1 list frame questionnaires was 92 minutes. Enumerators in Virginia and evaluators attributed the longer time to increased accuracy desired by the respondent when a second person was present.

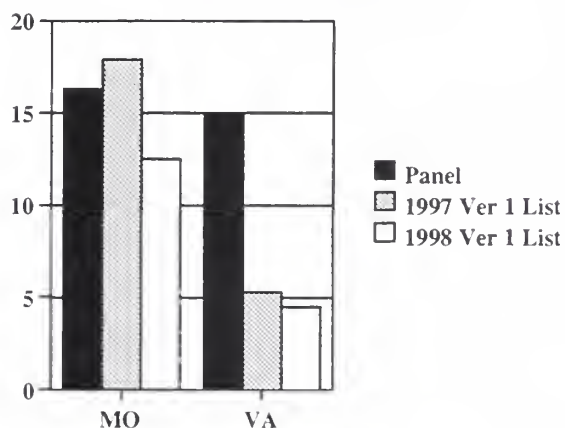
Even though we asked respondents to be in the study for three years, we had hoped to see response rates on the pilot

study that were significantly higher than response rates on the rest of the operational ARMS sample. We had also hoped to see response rates for 1998 increase compared to 1997. Below are the 1997 and 1998 positive usable rates and the refusal rates for those enumerators who worked on the pilot study in each state. Rates are broken down into three categories. "Panel" includes response rates for just the 1998 pilot cases, "1997 Ver 1 List" includes all 1997 ARMS version 1 cases from the list frame, and "1998 Ver 1 List" includes all 1998 non-panel ARMS version 1 cases from the list frame.

Useable Rate for Panel Enumerators



Refusal Rate for Panel Enumerators



As illustrated in the above graphs, response rates on the panel were greater than or equal to the response rates for the 1997 Version 1 list frame records, and slightly lower than the response rate on the 1998 Version 1 list frame cases. Refusal rates for the panel were higher than refusal rates for the 1998 Version 1 list records in both Missouri and Virginia, however, the overall 1998 refusal rates were lower than the 1997 rates for both states. Overall, response rates for these enumerators in 1998 were higher than 1997, possibly attributed to the additional PR and promotion directed at enumerators for all ARMS samples.

Remember, the panel sample was a subset of the Version 1 list frame sample, so those two rates are more comparable than rates on the total ARMS sample. That's why the graphs only compare the version 1 list sample to the panel sample (however, because many of the enumerators were supervisors with small workloads, the number of interviews was small in each group, making it difficult to make any strong statements about response rate differences).

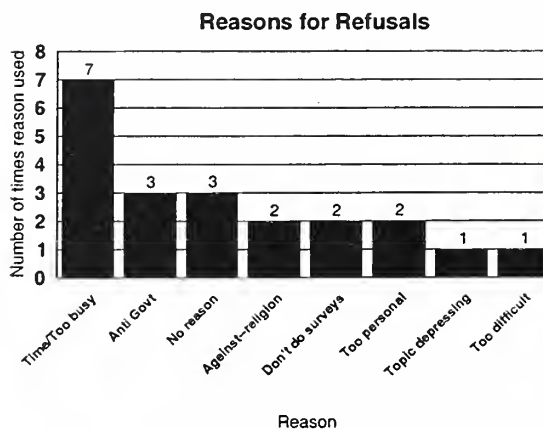
Since our PR and publicity efforts focused on the general ARMS survey as much as the pilot study, it is not surprising that interviewers had higher response rates and lower refusal rates in 1998 compared to 1997. The motivational aspects of the PR and Publicity pilot may have affected enumerators in all of their interviewing, not just on the panel. Also, the PR efforts we used to motivate enumerators may have even more effect on enumerators who traditionally do not have such high response. Hopefully, this will be tested in the next phase of the pilot when we expand the sample to include other enumerators.

It is promising that the response rate did not decrease significantly for the panel

given the three year aspect of the study. It is difficult to assess how much of the response rate was related to the added perceived burden of participation for three years. About half of the enumerators told farm operators up front that they would be asked to participate for three years, while half waited until sometime during the interview. There was no difference in the response rates between these enumerators. The two Virginia enumerators who told people up front did not feel that respondents heard them. Respondents showed surprise when the enumerator repeated the three year time period during the interview.

Pilot enumerators in Missouri and Virginia felt that part of the positive response was due to the pilot nature of the study. Farm operators liked the idea of participating in a study that would help make data collection easier and less time consuming in the future. Virginia enumerators also felt that part of the high response rate was a carry over from the mandatory Census done last year. They felt that farm operators were still feeling like they had to complete USDA forms.

There was a total of 15 refusals, 8 in Missouri and 7 in Virginia. The reasons given are shown in the table below:



("Against -- religion" refers to operators whose religion does not support or use government sponsored programs).

The totals do not add up to 15 because four operators gave at least two reasons for refusing. Three of the operators who gave time as a reason also gave other reasons for not cooperating. Time is often given as a generic reason for refusing when the respondent has other hidden concerns. Discovering these other concerns may help turn one-time refusals into cooperators.

The enumerators working on this project had much higher overall response than other enumerators in their states. These enumerators could be of great assistance if they did follow-up for, and went out as a team with other enumerators. This would give other enumerators ideas on how to encourage response in the future and may increase overall response.

There were two respondents that indicated that they would not participate in the survey next year. One operation will participate if we contact the son instead of the father. Enumerators identified two additional operators that would probably not participate, making a total of five known potential nonrespondents next year. We will track the actual number of operations that drop out of the survey in subsequent years.

ASSESSMENT OF CURRENT DATA COLLECTION METHODOLOGY

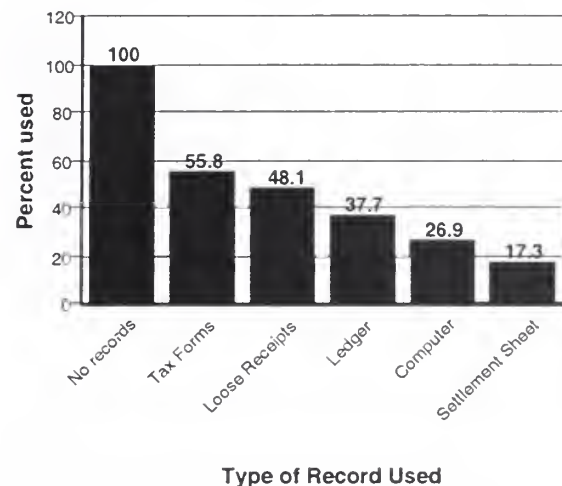
The evaluator assessed three criteria for each question or section as the enumerator proceeded through the interview. These criteria were called records, reaction, and data availability. These criteria were looked at to assess whether changes could be made to current data collection methodology

to make it easier for farm operators to report ARMS data.

Records Used

Records indicated the source the respondent used to come up with an answer to the question. Possible categories were "Computer", "Tax forms", "Settlement-Contract", "Loose Receipts", "Ledger" and "None used". The following graph shows the percentage of respondents who used each record keeping method *for at least one question* during the ARMS interview.

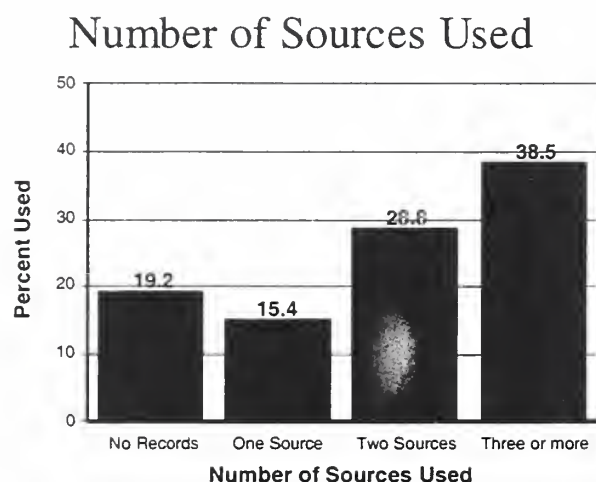
Types of Records Used



As shown above, every respondent answered at least one question using no records. About half used tax forms and/or loose receipts, more than a third used a ledger, about one quarter used a computer, and less than one fifth used a settlement sheet. The percentage using a settlement sheet may be higher in our sample than across the country because the sample area in Virginia consists of a large number of poultry contractors. One operator used her

1997 Census of Agriculture form. Almost 50 percent of the farm operators used a ledger or a computer, resulting in a relatively low percentage of farm operators who use a “formal” record keeping system to answer questions for this survey.

The graph below shows the number of different records that respondents used during the interview. The category marked “No Records” indicates the percentage of people who used no records for the *entire* interview.



Almost 20% of the respondents used no records for the entire interview, while almost 40% used at least 3 sources. This makes it difficult for us to develop a generic record keeping system or software that could be used for the entire interview for all respondents.

Reaction to Questions

As the name infers, Reaction measured the respondent’s overt reaction to the question. Categories were “Sensitive-Answered”, “Sensitive-Refused”, “Did not

understand”, “Other”, and “No reaction”. See Attachment A for the number of respondents who had these reactions to each specific question. Results in this area will be surprising to many at NASS who feel that the nature of economic questions is sensitive to respondents. Generally, in panel interviews with an evaluator present we found that respondents did not openly display sensitivity to specific questions. In fact, no question was so sensitive that more than one respondent refused to answer it (13 questions were refused by only one respondent each). Thirty-seven questions had one respondent indicate sensitivity, but they still answered the question. Three questions had two different respondents indicate sensitivity, but still answered the question. These questions were L2 - operator’s major occupation, L5 - highest level of formal education the operator has completed, and M7 - total value of all non-farm assets owned by the operator and members of the operator’s household on December 31, 1998.

In non-panel interviews, Virginia enumerators perceived much more sensitivity than in panel interviews. They attributed this to the presence of the second “official” person from Richmond or Washington. Therefore, they feel that there is more sensitivity to questions than we saw in our interviews. On the other hand, Missouri enumerators felt that once you started an interview, there was not a lot of sensitivity.

Respondents did have trouble understanding a few questions. Specifically, section L had numerous occurrences of confusion and requests for clarification. This section deals with farm operator characteristics, farm practices, and farm management strategies. With the exception

of this section, almost no question was misunderstood by more than two separate respondents. Section L should be reviewed and revised in future years to avoid such confusion. The questions requiring the respondent to strongly agree, agree, etc, were particularly difficult. The switch from questions using "never" to those using "always" was very confusing and took both respondents and enumerators a while to understand. Even then, evaluators noted that the answer that was recorded was not correct for the respondent. For example, question L8b states "I never hire custom work to be done." One respondent said "I don't ever do that, so I guess I disagree". Clearly, the questions and their answer choices are being misunderstood.

The term "cooperatives" has to be better explained to interviewers and respondents. At least 6 different respondents needed clarification which enumerators had a hard time giving. Two particularly difficult sections were J4 - estimated market value of the farm share for certain items and J5 - how much was owed to this operation ... from 1998 and earlier. These questions were not difficult to answer for the "end of the year Dec 31, 1998", but were for the "beginning of year Jan 1, 1998". You can see this clearly by looking at Attachment A to see that many respondents either wagered a guess, or wouldn't answer these at all.

Section L also had many people giving "other" reactions. For example, there were many occasions where respondents said "that's a stupid question" or "that's hard!". Again, this section should be reviewed and either revised or eliminated in the future to avoid such feelings from the respondent. Most questions in Section J3 and J4 on market value of assets had 1-4

respondents indicate "other" reactions such as questions being difficult or answers being unreliable.

A full listing of all the sensitivity questions and the number of respondents in each category for each question is included in Attachment A, the evaluator questionnaire. These numbers are in the right hand column of each page of the Attachment.

Data Availability

Data availability measured the ease with which the respondent could answer the question. Categories were "readily available", "calculated", "not available-no answer", and "not available-wild guess". Attachment A contains counts of the number of respondents who fell into each data availability category.

In general, most information asked for in the questionnaire was readily available to the respondent in some form or another. However, respondents did have to calculate many answers. Questions that required 20 or more respondents to calculate an answer included question A1 - acres owned, G12 - production expense for all other utilities, G25 - production expense for general business expenses, H1 - farm labor hours per week, J3b - estimated market value of all land and buildings owned by this operation, J4c - estimated market value for the farm share of all livestock and poultry owned by and located on this operation, and J4d - estimated market value for the farm share of all crops stored on or off this operation. The fact that respondents have to calculate certain responses is not necessarily a problem, considering that most respondents had no trouble doing the calculations. Calculations may be welcomed to get

accurate answers, however, we are increasing respondent burden since these are really no longer "single" questions.

There were many questions that could not be answered by a few respondents, but none that were unanswerable by more than 5 (cited as "not available - no answer"). Specifically, only three questions had 4 or 5 respondents that could not provide an answer. These questions were G3c - production expense for the purchase of chickens and turkeys, G23a-depreciation expense claimed by this operation in 1998 for breeding stock, and J4g - estimated market value for the farm share of all stock in farm cooperatives. In addition to these three questions, 16 questions had two or three refusals, and 40 questions had one respondent who could not provide an answer.

There were a number of questions that respondents were willing to answer, but only by taking a "wild guess". One hundred and three questions had at least one respondent make a wild guess to come up with an answer. Thirty-one of these questions had 2-5 different respondents make a wild guess, 6 questions were guessed at by 6-10 respondents, and 7 questions had guesses made by 10 - 20 respondents.

The seven questions with 10-20 respondents making guesses were G12 - production expense for all other utilities, H1 - farm labor number of hours, J3b - value of land and buildings owned by this operation, J4a - estimated market value for the farm share of all trucks, cars, tractors, machinery, tools, equipment and implements owned by the operation, M9a - household expenses for food and household supplies, excluding utilities, M9c - household expense for non-farm transportation, and M9e- household expense for other family living expenses

such as clothing, education, hobbies, recreation, gifts, magazines, charitable contributions, etc. Because these questions are guessed at so frequently, we may want to reconsider how we ask them or whether we ask them at all. Also, respondents often asked for the enumerator to help them make a guess which could lead to large interviewer bias across enumerators.

Information on the number of respondents who couldn't answer a question or had to make a wild guess is shown in Attachment A, the Evaluator Questionnaire. These numbers are in the column marked "DATA" in the far right column of the Attachment. Sections J, L, and M seem to be the most problematic in the current questionnaire. Many of these problems could be solved by rewording questions and asking for more concrete numbers so that respondents do not need to make wild guesses. Recommendations are in the section titled Cognitive Questions.

Questionnaire Different from Farm Records

At the end of the regular ARMS interview, the evaluator asked the respondent how our questionnaire is different from how the respondent keeps his own records. The main response was a discrepancy in the level of detail needed. Ten respondents gave general responses like "I have a small operation. My records are not as detailed as you want" and "My expenses are not broken out like that. They are lumped together for tax purposes".

Twenty-four other respondents gave 14 specific items that were not broken out in their farm records the same way they are on the ARMS questionnaire. Fuels were mentioned seven times, chemicals six times, fertilizer four times, and feed twice.

Medical supplies, miscellaneous expenses, farm vs. non-farm income and expenses, marketing charges, utilities, property taxes, truck expenses, breeding stock, hauling, medical supplies, and maintenance were all cited once as being items that were not broken out in farm records like they are on the ARMS questionnaire. One respondent suggested that percentages would work better for some of these sections.

Other comments here included ways to organize the form. Suggestions included following the IRS tax forms, Farm Bureau records, or settlement contracts. Along these same lines, one respondent suggested tailoring the form to each specific type of operation (commodity specific), including all income and expenses for each commodity together (instead of all income and then all expenses).

At least three respondents keep very detailed line by line records during the year, and only consolidate for tax purposes. Three other respondents only have information available for the entire calendar or settlement contract year, while two respondents have monthly data and need to multiply the data for our quarterly or annual totals.

Changes to Current Record Keeping Systems

We asked two questions to assess planned changes to farm operation record keeping as well as whether farm operations would change their record keeping system to accommodate the ARMS survey. These questions are shown below along with the percentage of respondents who indicated a positive response to each.

a. Do you anticipate making any changes

to your record keeping system in the next few years? (27.3% said they did)

b. Between now and next year, would it be possible for you to keep this information the way we asked for it this year? (19.1% said they would)

With over a quarter of respondents indicating that they were making changes to their systems in the next few years, it is feasible that we could provide some sort of assistance that would ultimately help our survey and the development of rapport with these operations. Also, it is promising that almost 20% of the respondents would make changes to their records if they knew what changes to make.

ALTERNATIVE DATA COLLECTION STRATEGIES

We asked 65 of the respondents about alternative data collection strategies ranging from providing computers to allowing interviewers to use farm operation records. Following are the questions we used and a graph showing the percentage of respondents that would be open to each idea.

a. Do you keep records similar to what we collected today at any place such as a university or FSA office? If so, what types of data are reported there? Could we access those records with your permission, instead of having to talk to you here? (called FSA/Univ in graph below-percentage includes those who said they had records and they we could access them if needed)

b. If we left it for you, would you prefer to fill out the questionnaire by yourself (instead of having an interviewer here)? (called By Self in graph)

c. Would it help to know exactly what

questions we would be asking before we got here? (called Copy of Questions in graph)

d. Do you think an interviewer could use your records to answer some questions, so that you do not have to sit with them the entire time? Would you be comfortable with that? (called Interviewer Use in graph - percentage shows those who said they would be comfortable with that)

e. Can we use data you gave us in the past 3 months on other NASS surveys for this survey? (called PRD in graph)

f. Are there any record keeping materials, software or assistance that we could provide to help you keep your farm records and make filling out the questionnaire easier? (called Materials in graph)

g. If USDA gave you a laptop or computer and software, would you use it for your farm record keeping? (called Computer in graph)

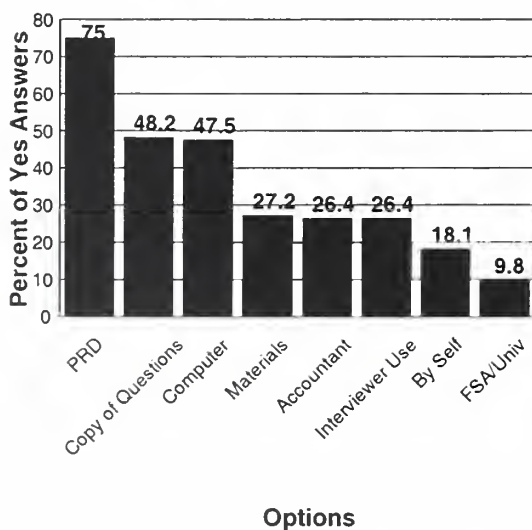
h. If you have a bookkeeper/accountant; can we talk to them to gather this information (at our expense if outside of operation)? (called Accountant in graph)

In general, respondents do not mind the use of previously reported data (75%). The Virginia pilot enumerators expressed interest in pursuing the use of previously reported data (PRD), while the Missouri enumerators did not. Virginia enumerators would like to see what effects we see if we give respondents back the exact form we used the previous year. Some felt we would get good data and decrease negative sentiment, while some felt we would get bad data. Missouri enumerators, on the other hand, are concerned about the appearance that data are not confidential.

Almost 50% of the respondents would like to see a copy of the questions ahead of time. One relatively simple change in methodology might be to make at least a partial list of ARMS items available to respondents before the interview (perhaps at the visit to make an interview appointment). Surprisingly, almost 50% of the respondents indicated that they would use a computer if it were provided to them by USDA.

Depending on cost and resources, we may want to follow up on this idea by talking in more detail to some of the panel respondents. About a quarter of these respondents would allow an enumerator to use their records, and about the same number would allow us to talk to their accountant. This might be one data collection strategy worth pursuing to determine its feasibility. One disappointing finding is that only about 10% of farm operators keep records at FSA or at a university (almost all said we could use them if the records would be useful). Of these, none had economic records that we would collect for this survey. State office personnel believe that more people would use outside record keeping services if they

Data Collection Options



were cheaper. However, at this time, in these states, we won't be able to consider collection from these types of offices as a data collection option. This is because of the limited number of farm operations currently using it, the limited amount of data kept at these systems.

COGNITIVE QUESTIONS

Questionnaire Issues

At the end of the actual ARMS interview, the evaluator asked the respondent if any questions were difficult, hard to understand, or confusing. From the responses and the comments evaluators made throughout the questionnaire, certain questions should be considered for modifications. Specific suggestions are as follows.

Section J3 asks for the estimated market value of all land and buildings rented or leased FROM others, and all land and buildings owned by this operation. Since numerous respondents cannot answer this question or have to posit a guess, they should be evaluated for usefulness. If they must be kept, a lead in for enumerators should be added to the questionnaire to help prepare the respondent. For example, "I am now going to ask about the market value of your property and buildings. This is important to the survey results because it allows analysis to be done on farmer assets including inheritance tax reform. Try to think of any other land or buildings that were recently sold in this area, or any knowledge of real estate value in this area."

A lead in like this will encourage the respondent to answer because it provides information on the importance of the particular data item. Similar information

should be given to enumerators for each questionnaire section.

Question J4 asks for estimated market value of farm assets for the beginning of the year as well as the end of year. These questions were difficult for respondents to answer, particularly for the two time periods. In addition, a few respondents became irritated by the request. Again, a lead in for enumerators may help prepare respondents and diffuse the respondent's annoyance with the two time periods.

Also in Question J4, as mentioned earlier, farm cooperative needs to be defined for enumerators as well as respondents.

Opinion and attitudinal questions like those in Question L8- L10 are subjective and difficult to analyze. If they are used, they should be carefully written and warrant more pretesting than the rest of the questionnaire. In general, questions like these should be straightforward, concise, and use common language.

If the current questions are included in future years, suggestions for modification are listed below.

Question L8 was confusing to many respondents and enumerators. One problem is the change between "always" and "never". Also, it was difficult for the enumerator to ask the questions using the first person pronoun, "I". Thirdly, the questions were too long for the respondent to retain or too confusing in the context of the interview. A recommended re-wording of this question follows:

- L8. Do you agree or disagree with the following statements?** 1=Always, 2=Most of the time, 3=Sometimes, 4=Once in a while, 5= Never.
- Month to month, do you have enough cash

on hand to pay all your bills?

-Do you hire custom work to be done?

-Do you spread the sale of your commodities over the year?

-Do you rely heavily on market information (*Government reports, private market news service*) in making your marketing decisions?

-Do you feel your farming operation has adequate liability insurance?

-Do you feel that most of your machinery is new or in good condition?

-In case of emergency, do you have back-up management and labor to continue farm activities?

-Do you feel you have adequate hail/fire insurance for crops?

-Do you use stock futures and/or stock options for marketing your crops or livestock?

Because so many enumerators and respondents misunderstood the question and because it is totally an opinion, the question on the concentration of the farming operation in one geographic area substantially increasing total risk should be removed.

Question L9 was sensitive and confusing to respondents. Also, it is worded in such a way that the respondent is led to answer affirmatively. A possible rewording follows:

L9. In 1998, did you-

1. use multiple production practices (put a definition or example here)?
2. manage debt to expand or to meet cash flow?
3. use a variety of ways to get your farm inputs, organize your production, and market your products?
4. use budgeting or record keeping to manage farm cash flow?

Question L9.1 asks about diversifying the numbers or types of enterprises (commodities) produced. Data tabulations are able to determine whether more than one enterprise was produced, so this question seems redundant. Question L8j and L9.3 both ask about using futures and stock options, so L9.3 was removed.

Question L10 assumes that the respondent remembers all of the strategies discussed above. A possible rewording may be:

L10. You indicated that you (*insert the strategies coded as "1" in L9*). Of these, which one was most important to you?

A definition of each different farm cooperative should preface questions L11-13 (L11- In 1998, did you sell any farm products to, or purchase any farm supplies or services from, a farmer-owned cooperative? L12- In 1998, were you a member of a marketing (*or bargaining*) cooperative? L13- In 1998, were you a member of a farm supply or related service cooperative?).

Question M9 was overwhelming to respondents and elicited 18 negative or misunderstanding reactions (Question M9 reads "Which value code represents how much this household spent in 1998 on-- a. food and household supplies, excluding utilities, b. household rent/mortgage, utilities, appliances and furnishings, c. non-farm transportation, d. medical expenses, insurances and contributions to retirement plans, e. all other family living expenses such as clothing, education, hobbies, recreation, gifts, magazines, charitable contributions, etc"). Statements made by operators included "Whoa, that's hard," "I could never answer that," "you're crazy!",

and "I have no idea." Also, numerous respondents (19, 9, 11, 5, and 15 for each part, respectively) had to make wild guesses for these questions. Some respondents even asked the enumerator for help with these questions.

Consideration should be given to eliminating this question from the questionnaire. If the question cannot be eliminated, the value codes should be modified to represent larger dollar ranges, and examples should be given. For example, reminders about possible large household expenses, amounts of averages spent on certain items, or other standard numbers should be given.

On a positive note, Virginia pilot enumerators feel that over the past few years, the questionnaire has been substantially improved.

In addition to the questions already discussed, the evaluator asked respondents three attitudinal questions. The three questions and the responses are included below to give a clear understanding of respondent attitudes. Sometimes, farm operators did not answer our question at all, but wanted to talk about something totally unrelated, mainly their attitudes and personal opinions.

Assistance with Other Programs

1. For people in this study, we are looking for ways to provide assistance with other USDA programs or agencies. Do you have any suggestions for this?

Future Government Programs

- ☐ One respondent thought it would be beneficial to have local Congressmen visit farms.
- ☐ A respondent also commented that

there shouldn't be any government programs, and that the government shouldn't pay his bills. He wants to pay his own bills - in fact he doesn't even collect social security.

- ☐ One suggestion was that the government provide information such as the best sprays, medicine, and feeds to use.

Government Loans and Tax Benefits

- ☐ One operator stated "I would like to see the government make low interest loans to beginning farmers to get started, perhaps 3%."
- ☐ Another operator remarked "the 3 1/2% loans that we had in 1977 were a good idea."
- ☐ Another operator explained that she would like information on new tax laws and changes through tax seminars run by USDA.
- ☐ One respondent suggested tax benefits for completing the surveys.
- ☐ One operator would be interested in getting low interest commercial loans. He feels the government needs to do a better job of helping the family farmer.

Personal Contact

- ☐ A common suggestion among operators was to keep up the personal contact.
- ☐ One comment was that a "contact person could be helpful, but I usually call the county agent with questions."
- ☐ Along the same lines another farmer suggested having a contact person for new farmers.
- ☐ Some operators would like to know what services are available from the State office.

- ☐ One comment was that “it would be nice to have assistance with follow up on a problem with another USDA agency.”
- ☐ The paperwork for some farm programs can be a real burden. The recent upgrades were so difficult for one respondent that he wondered if upgrading was worth the increase in revenue. Help in the proper way to fill out forms and processing would be a big relief.
- ☐ A final comment was that during “house bill #1207, it might have been nice for a representative from Congress to come back to people about this while they were deciding what was going on.”

Complaints

- ☐ A frustrated respondent commented that he “doesn’t feel his suggestions would amount to much.” He got direct deposit and he doesn’t want it. He’s not going to waste his time answering this question, he wants a hard copy check.
- ☐ A few operators wanted to completely “keep the government out of agriculture.”
- ☐ One operator complained; “there used to be 50 extension offices, and now there are only 2, people just can’t use farm specialists as much anymore.”
- ☐ Another complaint was that “the Department of Agriculture has lost credibility and is not much help at all - especially with cattle because the government doesn’t do anything about the meat packer monopoly.”
- ☐ One operator expressed that his “greatest fear is of environmentalist -

most recent is phosphate in manure - the government is not helping farmers anymore.”

- ☐ The Federal government needs to look at how to help the small farmer. This respondent had gripes about their contractor.
- ☐ One operator claimed that he was not interested in farm programs, but would rather let supply and demand “take care of it”. He would like to see less government in farming, but not none.

Benefits of Participation

2. What do you feel are the benefits of participation in this survey?

Eight respondents said there were no benefits or specifically said they didn’t know of any.

Perceived Damage by Government

- ☐ One operator replied, “I participate in this survey in order to try to minimize the damage the government will eventually do.”
- ☐ A few farm operators felt that the people that use the statistics have no idea or understanding of the information they are reading.
- ☐ A particular respondent felt that we are trying to help, but the survey is a waste of time. He claimed that Washington doesn’t understand farming.

Skepticism

- ☐ One respondent was hopeful that the government will stabilize milk permanently. This operator replied that maybe government will do

- something, but he doubts it.
- Another dairy operator replied that he "hasn't heard anything about how this helps with milk marketing. You haven't convinced me of any benefits. In a supply and demand market - 1% price change means 30% change to me."
- Finally a few operators posed the question: "Will this help the farmer?"

Specific Benefits of Reports

- One operator who said cattle operation was her main source of income, could see a direct benefit of Cost of Production reports.
- One operator explained that he thinks "reports help farmers with prices and help them realize what they take in and spend."
- Another respondent replied, "I have no specifics, just that I know the reports help farmers and the farm industry."
- One respondent claimed that, "I have learned that crop production reports help the government get an idea of what is going on. You can look at the results and see how you compare with everybody else. It's important to help us and chemical companies."
- "Reports help to keep up with the latest, to see if cost of farming is different for different types of farms, increased costs of farming are recognized," stated one respondent.
- One operator explained that "reports help to get information 'out there' in the newspaper and magazines."
- A farm operator's wife thinks that it will point out to other people how much farming costs and how much

time farming takes. She claimed that she didn't appreciate farmers until she married one.

General Benefits of Reports

- "Reports show the true picture of what's going on out here, the only way farmers can hang on is to have paid for land, prices don't stay with cost of production."
- One respondent replied that our reports are used to create farm policies, farm programs (i.e., loans).
- Another operator explained how upset he was about the current farm situation. He wants to know what we can do about it and sees crop reports as a possible chance to get the situation noticed.
- One respondent stated that he reports his data because he knows the reports give unbiased numbers.
- A few operators replied that "information is useful for others."
- "One of the benefits of the surveys are to let everyone know how good or bad farmers are doing."
- Another operator feels that reports help the government realize what farmers need and what's going on.

Gaining Cooperation from Other Operators

3. We have sent you a lot of information and talked to you about this survey. Of all that information, what would be most effective in gaining cooperation from other farm operators?

Shorten the Survey

- One respondent replied that "You need to shorten the survey, it's too long."

- ☐ One operator suggested that NASS cut time of survey to 30 minutes.
- ☐ Simplify the questionnaire to have it take less time.

Uses of Data and Confidentiality

- ☐ One operator said cooperation would be gained if there was a strong belief that the data were used properly.
- ☐ “The major problem is that people don't know where it goes, who uses it, or who has access,” one operator explained.
- ☐ Another operator felt that “knowing what it is used for and knowing ahead of time that you were coming was good for me.”
- ☐ One respondent stated, “for me, knowing what numbers were used for is the most beneficial, especially explaining confidentiality.”
- ☐ Finally, one respondent said “you need to stress confidentiality.”

Farm Facts Sheet

- ☐ A respondent replied that the second year she reported proved to her that we were for real, and not trying to rip her off. She thought the farm facts provided as a thank you for participating were a nice touch.
- ☐ Another operator said that “NASS provided an information packet the day before the interview and then gave me ‘farm facts’ as a thank you. This was a good way for me to know who you were.”

New or Good Ideas

- ☐ One operator explained, “I have used the State office in the past, and it would help to make people more aware of the services you provide so

that they will be more willing to cooperate with surveys.”

- ☐ A respondent suggested more local level support from FSA. He thinks we should promote NASS in the FSA newsletter sent to farmers.
- ☐ Another respondent said he would like to see more friendly government representatives and less government bureaucrats.
- ☐ One operator suggests implementing more education of farm programs and less regulation.
- ☐ One operator said he knows the country needs statistics, he wants to help his country, and he feels that the statistics help him, too.
- ☐ Another operator feels that it is a civic duty like jury duty, and that the letters we sent are very good.

Personal Touch

- ☐ A few operators indicated that they liked having a personable enumerator.
- ☐ One respondent explained that “it was not as much exactly what you sent, but the personal aspect of it was very convincing.”
- ☐ One operator explained “I liked the sentence in the letter ‘you have been selected out of only x farmers’ because it made me feel special. A worksheet or copy of questions would be helpful for others.”
- ☐ Another operator stated that the “postcard with (*enumerator's*) name specifically mentioned made me avoid any suspicion in the mailing.”

Incentives

- ☐ One respondent suggested giving a \$5 donation to FFA for each

completed ARMS survey as an incentive for cooperating.

- ❑ Another operator thought that paying people \$55 an hour would be a good idea.
- ❑ Still another respondent suggested that NASS pay people for the time it takes to do the survey.
- ❑ One respondent thought that the survey should be done every two years instead of every year, but the mailings were good on data uses and a good way to increase cooperation.
- ❑ One operator mentioned having a dinner for all farmers, spouses, interviewers, DC and office people, as well as the State Commissioner of Agriculture. He would like an opportunity to talk to all of these people and suggested that 7 PM on a weekday is best for farmers - he gave a location for it, too.
- ❑ One respondent suggested a dinner where the agriculture commissioner gives a short presentation with highlights of ARMS results and opens up discussion for input and questions from respondents. It would also help if the presentation showed specific examples of benefits to respondents.

In general, farm operators were willing to express their concerns and suggestions. However, many operators did not say much.

RECOMMENDATIONS

There are eight recommendations included in this report. They cover the following topics:

1. Motivational training for enumerators,
2. Increased presurvey publicity and promotion.
3. Exploration of alternative data collection options,
4. Additional follow up contacts,
5. Training manuals,
6. Questionnaire redesign,
7. Pilot study continuation in Virginia and Missouri,
8. Pilot study expansions to other states, and
9. Standards for panel studies.

1. Motivational Training for Enumerators

More motivational training should be given to enumerators and supervisors. This should include specific information on how important the data are and exactly how they are used. Small group training sessions similar to those held with pilot enumerators are productive and will provide the office with feedback on dealing with farm operators. In addition, Virginia pilot enumerators felt that more work on practice interviews should be done at schools. They felt that an enumerator's confidence is boosted when they are more familiar with the questionnaire and can move through it easily.

2. Increase Presurvey Publicity and Promotion

Presurvey publicity should be increased for the pilot, as well as the ARMS in general. Enumerators found promotional materials and training educational and helpful. In addition, respondent feedback to headquarters personnel, presurvey letters, and data use information was favorable. Also, for smaller samples like the ARMS panel, more targeted materials maybe be

more appropriate than the “blanket approach” we take now for presurvey publicity.

This requires presurvey work in the SSOs and/or headquarters offices on preparing information on data uses, enumerator training and meetings, and promotional mailings and handouts. All of these were helpful to enumerators working on this pilot.

3. Exploration of Alternative Data Collection Options

Based on the number of people open to new ideas and the NASS emphasis on making ARMS easier to complete, a few alternative data collection options should be explored further.

In particular, next year we should try using PRD for some ARMS pilot respondents, and providing an advanced copy of the questionnaire for the entire sample. In order to do this, a plan needs to be developed to determine what previously reported data to use as well as how the enumerator presents the data to the respondent. This would be an inexpensive procedure, but would require organization, photocopying and training expenses at the SSO.

For farm operators who indicated they would fill out the form on their own, we should have the enumerator leave the form with the respondent. This would require the SSO or HQ staff to create a list of the operations that preferred this method of responding, and to determine how the form should be presented to the respondent. This is also an inexpensive procedure that only requires a small amount of training and preparation.

In addition, for a few particular

respondents, an interviewer should try to use farm operator records, or contact their accountants to fill out the majority of the questionnaire. Also, we should pick a couple of operations to test the use of financial assistance with computer record keeping systems. These are more expensive data collection strategies that should be done to assess their feasibility and usefulness. If they prove to be acceptable to enumerators and farm operators, provide accurate data, and increase survey cooperation, they may be tested on a larger scale.

In order for an enumerator to use a farm operator’s records or accountant, a plan would need to be developed outlining how to represent the option to the respondent (we asked operators about this, so we would only attempt to collect data this way from operators who indicated it was alright), what data to gather, how to resolve problems, what problems to document, and how the process might be easier in subsequent years. Depending on how quickly enumerators can access and interpret the information, this option could require additional enumerator expenses. Also, payment may be required for the accountant’s time. When the option of talking to an accountant is presented, we must be careful not to make it appear that the accountant’s time is worth more than the farm operator’s.

Providing financial assistance and employee support for computer systems would require money, computer resources, and NASS employee computer support. We would have to choose one to three farm operators to work closely with, determine their computer literacy level, purchase equipment and/or software, assist with installation and setup, and provide ongoing support for farm record keeping. This option would be costly, and require ongoing

employee hours throughout the year. In addition, comprehensive notes would need to be kept documenting the process, and any potential problems or positive outcomes.

At least in Virginia and Missouri, using records from a FSA office or university does not seem feasible as part of the continuing pilot study.

For other operators who indicated special things NASS could do to ease their reporting burden, NASS should investigate and try to comply with these methodologies or special requests. For example, one respondent indicated that he would keep records on his ledger in the "NASS format", but he didn't have a 30-column ledger; he said that if NASS would give him a 30-column ledger, or two 15-column ledgers, he'd be happy to comply. This kind of accommodation can be inexpensively met.

4. Additional Follow up Contacts

Based on this small study, we still do not know whether operators will continue in the project for 3 years. We recommend that we continue follow up contacts with both refusals and respondents to gauge response and reaction to the 3 years aspect of the study. In addition to the thank you cards already mentioned, an individual farm analysis will be delivered in the fall of 1999.

Another follow up contact we recommend is a personal visit from an enumerator sometime in November or December to remind farm operators that we will be back in February, deliver a holiday cookie tin, and reiterate the offer of State office assistance with record keeping or other farm related issues.

In each of these follow-up contacts, respondents should be reminded of the benefits of the ARMS survey or other NASS

surveys. The interaction should be tailored to each individual respondent, making it difficult to give specific procedures to enumerators.

Based on comments from respondents and enumerators, we need to do a better job of describing how this survey benefits farm operators. Even if operators cooperate for one year, convincing them of the importance of the survey may increase the chance that they will cooperate over the long run. Therefore, we recommend at least one postcard mailing in January 2000. This postcard would have information about a few recent ARMS data uses that directly benefit farm operators.

5. Training Manuals

Training manuals need more information on specific topics including government CCC loan programs, government land programs, and co-operatives. Enumerators should be encouraged to recommend future questionnaire changes and overall reorganization of manuals, and should be given feedback as to why the questionnaires are in a certain format or contain certain material.

6. Questionnaire Redesign

Certain questions should be considered for modification or removal from the survey. See the section titled Cognitive Questions, Questionnaire Issues for specifics.

7. Pilot Study Continuation in VA and MO

The pilot study should be continued for survey year 1999 in Missouri and

Virginia. This would allow measurement of the number of respondents that drop out of the sample and those that will respond in 1999 even though they refused the 1998 survey. We can also learn how follow up contacts affect cooperation. This would require an ARMS contact with each pilot operator in February 2000. Procedures would need to be developed for any additional promotional items, ideas, or incentives. Some suggestions include free soil testing, feed nutrient analysis, and donations to local agricultural organizations. Since second year pilot interviews with these operations would be in addition to the 1999 operational ARMS sample, enumeration and office costs would be increased in these two states.

8. Pilot Study Expansion to Other States

Because ARMS data is more easily generalized than commodity specific data, we do not recommend expanding into other states until further work is done in Missouri and Virginia.

The two person team was an effective part of the first interview in many ways. If the pilot does expand to other states, the effectiveness of this procedure should be evaluated to determine its use in the operational ARMS panel. If this two person team approach is deemed to be an essential part of the first interview, staff from HQ and the SSOs need to be available for evaluator training and travel on a short notice. This was somewhat of a problem with just two pilot states, so much consideration should go into future interview procedures.

9. Standards for Panel Studies

In order to determine and evaluate whether panel surveys are successful, NASS should set some acceptable response and dropout rates. This may become particularly important when the panel study is extended to other enumerators in Virginia and Missouri, since response rates may be lower.

CONCLUSION

Because this is the first year of the panel plus pilot study, we do not know whether a panel approach to the ARMS will be effective. We know that with up-front public relations and promotion work with a longitudinal study, we can at least keep first year response rates at a similar level to that of a non-longitudinal study.

Data that was collected on data availability, sensitivity to questions and record keeping were asked during this first year to assess whether these issues affect survey cooperation and reactions on individual questions. We were hoping that we would discover ways that we could make it significantly easier for people to report, but we did not find that reporting burden was a major problem in this study. We did find some differences in the way certain farm operators do their record keeping, but none that were universal.

As work continues on the ARMS panel pilot study, an operational plan will be developed for the implementation of a panel design for the survey. Results from other work being done on questionnaire design, sampling and statistical modeling will be presented separately. Depending on those results, one overall ARMS panel design will be created.

1998 AGRICULTURAL RESOURCE MANAGEMENT STUDY PHASE III
COSTS and RETURNS REPORT

VERSION	POID	TRACT	SUBTRACT
01	_____	01	_____

REACTION	REACTION GRID	
	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

BEGINNING TIME [MILITARY] 0004

☐ [Name, address and partners verified and updated if necessary.]

[ENUMERATOR NOTE:
 If box code 1, complete
 Screening Supplement.
 If box is blank, begin Section A.]

SCREENING BOX

0006

PARTNERS:

REACTION	RECORDS	DATA

SECTION A

LAND IN FARM/RANCH

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

ACRES OPERATED

1. Own?
2. Rent or lease FROM others for--
 - a. Cash?
 - b. A share of crop or livestock production?
 - c. Free-of-charge?
3. Rent or lease TO others for cash, share, or free of charge?
4. Use part of the year for crops or livestock, and rent to another operation during another part of the year?
5. Then the total acres operated was--
[Total 1 + 2a + 2b + 2c - 3 + 4.]
6. Of the total acres in this operation (item 5) how many acres were considered tillable CROPLAND, including land in hay and land in government programs?

REACTION	RECORDS	DATA
U=2 O=1		C= 25 W= 1
		C=2
U=1		
		C=2
		C=2
		C=2
		C=2

RENT PAID

7. Including rent for buildings and land, what was the total cash rent PAID in 1998?

REACTION	RECORDS	DATA
S=1		C=12

RENT RECEIVED

8. Including rent for buildings and land, what was the total cash rent
9. For acres share-rented to others, what was the total value of the crop or livestock shares RECEIVED in 1998?
10. Does this operation use any land administered by public agencies, industrial corporations or grazing associations on an animal unit month (AUM) basis?
 - a. In 1998, what were the total usage fees that this operation PAID for the use of this *public* land?
11. In 1998, how much did this operation spend on pasturing or grazing of livestock on PRIVATELY owned land used on a fee per-head (AUM) or gain basis?
12. In 1998, how many acres did this operation have--
 - a. enrolled in the Conservation Reserve Program (CRP)?
 - b. enrolled in the Wetlands Reserve Program (WRP)?
 - c. in other federal and state farm programs?
13. Which of the categories represents the largest portion of this operation's 1998 gross income?

REACTION	RECORDS	DATA
S=1 O=1		C=2 W=1
S=1		C=2
S=1		C=2
S=1		C=2
S=1, U=1		C=2
S=1		C=2

SECTION B

ACREAGE and PRODUCTION

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

1. CROP
2. How many acres were harvested?
3. What was the average yield per acre?
4. How much of this operation's share of the total production was (*will be*) used on this operation?
5. What was the market value of the landlord's share of this crop?
6. How many of the harvested acres (*column 2*) were planted with bio-engineered seed?
7. What type of bio-engineered seed was used?

REACTION	RECORDS	DATA
S = 1, U = 1		C = 7
		C = 4
		C = 12, N = 1
		C = 6, N = 1
		C = 6, N = 1
U = 1		N = 1
		N = 1

2. Were any crops certified organically grown on this operation in 1998?
3. Precision farming techniques are a relatively new innovation in production agriculture. Are you aware of various precision farming techniques?

From what information source have you obtained most of your knowledge about precision farming?

4. Did you use any precision farming technologies for crop production in 1998?

On how many acres did you--

- a. have soil samples taken to create a grid map for use with a GPS
- b. fertilizer and/or lime with variable rate technology (VRT)?
- c. seed with variable rate technology (VRT)?
- d. apply pesticides with variable rate technology (VRT)?
- e. use a yield monitor (*with or without GPS*)?
- f. develop yield maps?
- g. use remote sensing?

REACTION	RECORDS	DATA
S = 1, U = 1		C = 6, W = 1
		C = 11, N = 1, W = 4

		C = 3, W = 1
U = 1		
U = 1		

SECTION C

INCOME from CROPS

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

1. During 1998, did this operation have **MARKETING CONTRACTS** or formal agreements to market any crops it produced?

1. What crops did this operation have MARKETING contracts for in 1998?
2. Crop code
3. Who was the contractor?
4. What quantity of [*commodity*] was marketed through the contract?
5. Unit code?
6. What was (*will be*) the FINAL PRICE RECEIVED per [*unit*]
by this operation for [*commodity*] marketed under this contract?
7. What was the total dollar amount received in 1998 from this contract?

REACTION	RECORDS	DATA
S = 1, O = 1		
U = 1		
		W = 1
U = 1		
		C = 1, W = 1
		C = 5

2. During 1998, did this operation have PRODUCTION CONTRACTS or formal agreements to produce any crops for a processor, packer, canner, integrator or another operation, etc.?

1. What crops did this operation have PRODUCTION contracts for in 1998?
2. Crop code
3. Who was the contractor?
4. What quantity of [*commodity*] was removed from the operation
under this contract during 1998?
5. Unit code?
6. What was (*will be*) the FINAL FEE RECEIVED per [*unit*] by this
operation for producing [*commodity*] under this contract?
7. What was the TOTAL FEES RECEIVED in 1998 under this contract?

[illegible]

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

CASH or OPEN MARKET SALES - CROPS

- Which of these crops were sold for CASH or on the open market in 1998?
- Crop code
- What was the NET dollar amount received in 1998 for [column 1]? . . .
- [Ask everyone.] Were any crops redeemed from the CCC and sold during 1998?

REACTION	RECORDS	DATA
S = 1		C = 2, N = 1 W = 1
S = 1		C = 2, N = 1
S = 1		C = 5, N = 1

O = 1		C = 1
-------	--	-------

- What were the total MARKETING CHARGES paid by [column] for all crops in 1998, including commodities not yet sold?

OPERATOR & PARTNERS			LANDLORD(S)			CONTRACTOR(S)		
R	R	D	R	R	D	R	R	D
O = 1								

- What was the total dollar amount this operation received in 1998 for--

REACTION RECORDS DATA

- crops sold under Marketing Contracts in previous years? . .
- crops produced under Production Contracts in previous
- Cash or Open Market sales of crops in previous years? . . .

U = 1		C = 4, N = 2, W = 3
		C = 2, W = 1 N = 1
		C = 2, N = 1

SECTION D

LIVESTOCK

1	2	
	On December 31, 1998, how many [column 1] were--	
1. Did this operation have any [item] on hand December 31, 1998?	--owned by this operation?	--NOT owned by this operation?
a. All beef cattle--		
b. All dairy cattle--?		
c. All hogs and pigs?		
d. Sheep and lambs?		
e. Hens and pullets of laying		
f. Broilers, fryers and other meat-type chickens?		
g. Turkeys?		
h. All other livestock and		

- What was the total value of the landlord's share of livestock production in 1998?

REACTION	RECORDS	DATA
		C = 17
		C = 8
		C = 2
		C = 1
		C = 3

SECTION E

INCOME from LIVESTOCK and LIVESTOCK PRODUCTS

REACTION	REACTION GRID	
	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

1. During 1998, did this operation have **MARKETING CONTRACTS** or formal agreements for any livestock or livestock products it produced?

1. What livestock or livestock products did this operation have **MARKETING** contracts for in 1998?
2. Livestock code
3. Who was the contractor?
4. What quantity of [*commodity*] was marketed through the contract? ...
5. Unit code?
6. What was (*will be*) the **FINAL PRICE RECEIVED** per [*unit*] by this operation for [*commodity*] marketed under this contract? ...
7. What was the **TOTAL DOLLAR AMOUNT** received in 1998 from this contract?

REACTION	RECORDS	DATA
S = 1		C = 2, N = 1
		C = 1
S = 1		C = 2
S = 1		C = 2

2. During 1998, did this operation have **PRODUCTION CONTRACTS** or formal agreements to produce any livestock or livestock products for a processor, packer, canner, integrator or another operation, etc.?

1. What livestock or livestock products did this operation have **PRODUCTION** contracts for in 1998?
2. Livestock code
3. Who was the contractor?
4. What quantity of [*commodity*] was removed from the operation under this contract during 1998?
5. Unit code?
6. What was (*will be*) the **FINAL FEE RECEIVED** per [*unit*] by this operation for producing [*commodity*] under this contract?
7. What was the **TOTAL FEES RECEIVED** in 1998 under this contract?

REACTION	RECORDS	DATA
U = 1		
		C = 9
		C = 1
		C = 7, W = 1
		C = 4, W = 1

CASH or OPEN MARKET SALES—Livestock and Livestock Products

REACTION	REACTION GRID	
	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

1	2		4
3. Which of these livestock and livestock products were sold for CASH or on the open market in 1998?	What was the number of [column 1] sold in 1998?		What was the NET dollar amount received?
	REACTION	RECORDS	DATA
a. Dairy and beef cattle sold for breeding stock?	S = 1, U = 1, O = 1		C = 3
b. Finished cattle? (<i>cattle sold directly to slaughter</i>)	U = 1		
c. Feeder cattle? (<i>cattle sold for finishing</i>)	U = 1		C = 6, W = 2
d. All cull and other cattle?	U = 1		C = 8, W = 2
e. Hogs and pigs sold for breeding stock?			C = 1
f. Market hogs (<i>hogs sold directly to slaughter</i>)?			W = 1
g. Feeder pigs?			W = 1
h. All other hogs and pigs?			W = 1
i. Milk and other dairy products?			C = 1
j. Eggs?			
k. All other poultry and poultry products?			
l. ALL OTHER LIVESTOCK or livestock products— . . .			C = 2

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

4. What were the total **MARKETING CHARGES** this operation paid for all livestock and livestock products in 1998?

OPERATOR & PARTNERS			LANDLORD(S)			CONTRACTOR(S)		
R	R	D	R	R	D	R	R	D
S=1		C=6 N=2 W=3						

5. What was the total dollar amount this operation received in 1998 for--
- Livestock or livestock products sold under Marketing Contracts in previous years?
 - Livestock or livestock products produced under Production Contracts in previous years?
 - Cash or Open Market sales of livestock or livestock products in previous years?

REACTION	RECORDS	DATA
U=1		C=2

6. Did any *OTHER* operation grow livestock or poultry FOR this operation under a contract arrangement in 1998? [*Your operation is a contractor.*]

- What livestock or poultry were being raised or fed by you
- Livestock code
- What was the market value of [*type*] on hand on contractee operations on Jan. 1, 1998?
- What was the estimated market value (*at placement*) of [*type*] placed under contract DURING 1998?
- How much was paid to contractees for production costs, INCLUDING fees for services?
- How much were your GROSS receipts from [*type*] sold or removed under this contract?
- On Dec. 31, 1998, what was the market value of unsold [*type*] remaining under contract?

REACTION	RECORDS	DATA
U=1		W=1

SECTION F

OTHER FARM INCOME

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

CCC LOANS

1. How much was received for all commodities placed under CCC loan during 1998?
2. What was the amount spent to repay all CCC loans during 1998?
3. What was the face value of all outstanding CCC loans on December 31, 1998?

REACTION	RECORDS	DATA
S = 1, O = 1		C = 1, W = 1
O = 1		C = 1

GOVERNMENT PROGRAM PAYMENTS

4. What is the total dollar amount this operation received in 1998 for--

- a. Conservation Reserve Program (CRP) payments?
- b. Wetlands Reserve Program (WRP) payments?
- c. Environmental Quality Incentive Program (EQIP) payments?
- d. agricultural disaster payments?
- e. loan deficiency payments (LDP's)?
- f. transition payments?
- g. other federal or state agricultural program payments

U = 1		C = 4
		C = 1
		C = 1
		C = 2
S = 1, O = 1		C = 12, W = 1
S = 1		C = 8
		C = 2

5. What is the total dollar amount your landlord(s) received in government payments for the acres you rented from them?
6. In 1998, what was the total income received by you (*the operator*) and all partners for--

U = 1		C = 2, N = 1, W = 3
-------	--	------------------------

- a. custom work and machine hire *for others*?
- b. grazing of livestock?
- c. sales of all forest products?
- d. the farm share of sales of farm machinery and vehicles?
 - (1) How much of this (*item 6d*) was for sales to other
- e. Federal Crop Insurance indemnity payments?
- f. other insurance indemnity payments?
- g. cooperative patronage dividends and refunds?
- h. all other farm related sources of income?

		C = 3, N = 1, W = 1
		C = 1, W = 1
		C = 11, N = 3, W = 2
U = 1, O = 1		C = 2

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

7. Were any commodities or produce grown or raised on this operation sold directly to individual consumers?
8. Were any commodities or produce grown or raised on this operation sold to wholesalers or retailers to sell directly to individual consumers, without processing or changing their form?

REACTION	RECORDS	DATA
O = 1		

SECTION G PRODUCTION EXPENSES

CROPS

1. Seeds, sets, plants, seed cleaning, seed treatments, etc. and transplants and trees?
2. All fertilizer, lime and soil conditioners?

R	R	D
O = 1		C = 12, N = 1, W = 3
O = 1		C = 13, W = 3

LIVESTOCK

3. Purchases of--
- a. Breeding stock for beef cattle, dairy cattle, hogs and sheep?
- b. Other cattle, calves, hogs and pigs?
- c. Chickens and turkeys?
- d. Other livestock and poultry, including other sheep and lambs, bees, brooder fish, fingerlings, etc.?
4. Leasing of livestock?
5. All purchased feed for livestock and poultry?
- How much of this (item 5) was for--
- a. barley, field corn, oats, sorghum (milo), wheat?
- b. hay and forage?
- c. complete rations and formula feeds?
- d. protein meals and concentrates?
- e. Supplements and all other ingredients--salt, vitamins, minerals, molasses, middlings, pulp, tankage, fat, etc.?
6. All bedding and litter?
7. All medical supplies, veterinary and custom services for livestock?

		C = 4
		C = 1
U = 1, O = 1		C = 5, N = 4
		N = 1
O = 1		C = 11, N = 3, W = 2
		C = 3, N = 1, W = 2
		C = 5, W = 2
U = 1, O = 2		C = 8, N = 1, W = 4
O = 1		C = 4, N = 1, W = 4
U = 1, O = 1		C = 9, N = 1, W = 3
		C = 2, W = 3
		C = 8, W = 2

REACTION	REACTION GRID	
	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

CHEMICALS

8. All agricultural chemicals and pesticides for crops, livestock and poultry

R	R	D
U = 1, O = 1		C = 8, N = 1, W = 3

UTILITIES

9. Purchases for the farm business of--
a. diesel fuel?

		C = 17, W = 5
--	--	---------------

- b. gasoline and gasohol?

		C = 14, N = 1, W = 5
--	--	-------------------------

- c. natural gas?

		C = 2, W = 2
--	--	--------------

- d. LP gas (*propane, butane*)?

		C = 6, W = 3
--	--	--------------

- e. oils and lubricants?

		C = 11, N = 1, W = 4
--	--	-------------------------

- f. all other fuels?

		W = 2
--	--	-------

10. ELECTRICITY for the farm business?

		C = 15, W = 6
--	--	---------------

11. Purchased water for irrigation from off-farm suppliers

		C = 1, W = 1
--	--	--------------

12. All other utilities

		C = 21, W = 19
--	--	-------------------

SUPPLIES and REPAIRS

13. Farm supplies, marketing containers, hand tools and farm shop power equipment?

U = 2		C = 11, W = 2
-------	--	---------------

14. Repairs, parts and accessories for motor vehicles, machinery and farm equipment?

U = 1		C = 11, W = 3
-------	--	---------------

15. Maintenance and repair for the upkeep of all farm buildings, houses other than the operator's, land improvements, and all other farm/ranch improvements?

U = 2		C = 7, N = 2, W = 3
-------	--	------------------------

16. Maintenance and repair of the operator's house if it was owned by the operation?

U = 2		C = 1, N = 1, W = 5
-------	--	------------------------

INSURANCE, TAXES, and CAPITAL RENTS

17. Which of these types of insurance did this operation purchase in 1998?

- a. Basic catastrophic insurance (*CAT coverage*)?

U = 1		C = 1
-------	--	-------

- b. Buy-up on catastrophic insurance for higher levels of yield and price protection?

U = 1		
-------	--	--

- c. Revenue insurance?

		C = 1
--	--	-------

- d. All other insurance except life, health or payroll insurance?

U = 1		C = 3, W = 1
-------	--	--------------

18. All insurance for the farm business?

U = 1		C = 13, W = 3
-------	--	---------------

19. Interest and fees paid on debts secured by real estate?

		C = 12, W = 2
--	--	---------------

20. Interest and fees paid on debts NOT secured by real estate?

		C = 13, W = 3
--	--	---------------

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

21. All real estate taxes (*land and buildings*) and other property taxes for the farm business

R	R	D
O = 1		C = 19, N = 1, W = 3
U = 1		C = 17, W = 2
O = 1		C = 4, W = 1
		C = 1, N = 1, W = 2
		C = 2, N = 4, W = 2
		C = 7, W = 2

a. How much of this was for real estate tax only?

22. All renting or leasing of tractors, vehicles, equipment or storage structures

23. Depreciation expense claimed by this operation in 1998 for all capital assets.

a. How much of this depreciation expense (*item 23*) was claimed for breeding livestock?

24. All new fences, land improvements, and all buildings completed or remodeled?

How much of this (*item 24*) was for remodeling or new construction of--

a. the operator's house?

b. all farm buildings, sheds and storage facilities, and houses other than the operator's?

25. How much general business expenses did your operation have in 1998?

26. What other production expenses did this operation have in 1998 that I haven't recorded?

27. For workers who were members of your (*the operator's*) household, what was the cash value of any commodities provided to them as payment for farm work?

28. What was the market value of products produced and used on this operation for home consumption?

29. For workers who were NOT household members-- what was the cash value of all commodities, feed, fuel, housing, meals, other food, utilities, vehicles for personal use, and any other non-cash payment for farm work?

		C = 3
		C = 2
O = 1		C = 21, W = 4
U = 1, O = 2		C = 6, N = 1, W = 1
R = 1, U = 1		C = 6, W = 4
		C = 6, W = 2

LABOR

30. All CASH WAGES paid to hired farm and ranch labor?

31. Of the total cash wages (*item 30*), how much was paid out to--

a. You (the operator)

b. Your (the operator's) spouse and other household members?

c. All other paid farm and ranch labor?

		C = 9, W = 1
		C = 2
		C = 1
		C = 8
O = 1		C = 11 W = 1
		C = 1, W = 1
		C = 2
S = 1		C = 14 N = 2
S = 1		C = 5, N = 1

32. Payroll taxes and benefits for paid labor?

33. CONTRACT LABOR?

34. CUSTOM WORK such as--

a. Hauling-- Include all custom grain, livestock, milk, manure, and other custom hauling?

b. All other custom work done on this operation including machine hire, and rental of machinery and equipment?

SECTION H

FARM LABOR

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

REACTION	RECORDS	DATA
0 = 3		C = 22, W = 13

1. Next, I need to get your best estimate of the time spent doing work on this operation in 1998.
On the average, about how many HOURS PER WEEK did-
 - a. You (the operator) do farm/ranch work during [column], including paid and unpaid hours?
 - b. Your spouse (the operator's) do farm/ranch work during [column], including paid and unpaid hours?
 - c. Unpaid workers (*such as partners, family members, etc.*) do farm/ranch work during [column], including unpaid hours only?

SECTION J

ASSETS

NEW PURCHASES

1. Which of these items were purchased for FARM or RANCH use in 1998? What was the total amount spent?
 - a. New or used cars?
 - b. New or used trucks, pick-ups, sport utility vehicles, vans, campers and buses?
 - c. New or used tractors?
 - d. New or used SELF-PROPELLED farm equipment, implements and machinery including capital equipment for livestock, dairy or poultry production?
 - e. New or used NON SELF-PROPELLED farm equipment, implements and machinery, including capital equipment for livestock, dairy and/or poultry?
2. During 1998, what was the total amount this operation spent for purchases of computers, office equipment and furniture that was placed on a depreciation schedule?

REACTION	RECORDS	DATA
		C = 8, W = 3
		C = 6, W = 1

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

VALUE OF LAND and BUILDINGS

3. On December 31, 1998 what was the ESTIMATED MARKET VALUE of--

	REACTION	RECORDS	DATA
a. All land and buildings rented or leased FROM others?	O=3		C=11, W=8
b. All land and buildings owned by this operation?	O=3, S=1, R=1		C=20, N=2, W=14

Of this amount (*item 3b*), what was the market value of--

4. What was the ESTIMATED MARKET VALUE for the farm share of--

a. All trucks, cars, tractors, machinery, tools, equipment and implements <i>OWNED</i> by the operation on--	O=4		C=15, N=3, W=14
b. All trucks, cars, tractors, machinery, tools, equipment and implements <i>LEASED</i> by the operation on--			C=5, W=2
c. All livestock and poultry <i>OWNED BY</i> and <i>LOCATED ON</i> this operation on--	U=1, O=2		C=25, N=1, W=4
(1) How much of this (<i>item 4c</i>) was the value of breeding livestock?	O=1		C=13, W=6
d. All crops stored on or off this operation on--	U=1, O=2		C=24, N=2, W=3
e. All production inputs <i>owned by this operation</i> such as feed, fertilizer, chemicals, fuels, parts, purchased, seed and other supplies, etc on--	O=1		C=12, N=3, W=7
f. All production inputs <i>already used</i> for cover crops or crops not yet harvested, also known as <i>sunk costs</i> on--	U=1		C=6, N=3, W=4
g. All stock in farm cooperatives?	U=3, O=1		C=3, N=5, W=6
5. How much was <i>OWED TO</i> this operation for sales or production of crops, livestock, livestock products, poultry or poultry products from 1998 and earlier years?			W=2
6. On December 31, 1998, what value code represents the estimated MARKET VALUE of all <i>other</i> farm assets owned by this operation?	S=1, R=1, U=2		C=4, N=2, W=3

SECTION K

DEBT

1. What was the maximum amount of seasonal production loans or any other loans taken out and repaid in 1998?
2. Did this operation owe any money to any banks, co-ops, individuals, merchants or Federal agencies at the end of 1998?

REACTION	RECORDS	DATA
U=1		W=2

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

3. Think about the four largest outstanding loans this operation had on December 31, 1998. Starting with the largest of these loans—

1. Who was the lender
2. What was the balance owed on Dec. 31, 1998 including outstanding principal plus unpaid interest?
3. What was the interest rate?
4. What was the original term of the loan?
5. What year was it obtained?
6. What percent was for FARM purposes?
7. Was this loan guaranteed by?

REACTION	RECORDS	DATA
U = 1, O = 1		C = 7, W = 1
		C = 2
		W = 2
		C = 1, N = 1,
U = 2		N = 1

REACTION	RECORDS	DATA
		C = 3

4. How many farm loans were there in addition to the four I've just recorded?
- a. What was the total amount of debt owed on December 31, 1998 on these (*item 4*) loans?

SECTION L FARM OPERATOR

REACTION GRID
REACTION
S: Sensitive-Answered
R: Sensitive-Refused
U: Did not understand
O: Other
BLANK: No reaction

		REACTION
1.	In 1998, was this operation's LEGAL STATUS--	
a.	Were there more than 10 stockholders?	S = 1, U = 2
2.	In 1998, what was your (<i>the operator's</i>) major occupation?	S = 2, O = 1
3.	How old were you (<i>the operator</i>) on your last birthday?	U = 2, O = 1
4.	In what year did you (<i>the operator</i>) begin making day-to-day decisions for any farm/ranch?	O = 1
5.	What is the <i>highest</i> level of formal education you (<i>the operator</i>) have completed?	S = 2, O = 1
6.	Which of these do you (<i>the operator</i>) consider yourself? Are you--	
7.	Are you (<i>the operator</i>) --	
8.	How much do you agree or disagree with the following statements?	
a.	I never have enough cash on hand or assets that can be easily converted to cash to pay all my bills.	S = 1, U = 3, O = 6
b.	I never hire custom work to be done.	S = 1, U = 3, O = 5
c.	I always spread the sale of my commodities over the year.	U = 2, O = 3
d.	I rely heavily on market information (<i>Government reports, private market news service</i>) in making my marketing decisions.	S = 1, U = 2, O = 3
e.	My farming operation has adequate liability insurance.	S = 1, U = 2, O = 5
f.	Most of my machinery is new or in good repair.	U = 3, O = 3
g.	The concentration of my farming operation in one geographic area substantially increases my total risk.	S = 1, U = 10, O = 4
h.	In case of emergency, I have sufficient back-up management/labor to carry on production.	S = 1, U = 2, O = 2
i.	I have adequate hail/fire insurance for crops.	S = 1, U = 5, O = 4
j.	I never hedge by using futures and/or options for marketing crops or livestock.	U = 3, O = 3

REACTION GRID
REACTION
S: Sensitive-Answered
R: Sensitive-Refused
U: Did not understand
O: Other
BLANK: No reaction

9. In 1998, which of the following strategies did you use?

Did you--

- 1 diversify the numbers or types of enterprises produced?
- 2 use multiple production practices to spread risks and stabilize returns?
- 3 use options to forward price commodities produced?
- 4 actively manage debt to expand or to meet cash flow?
- 5 maintain flexibility in the way you get farm inputs,
organize production, and market products
- 6 actively use budgeting or other record keeping to
manage cash flow and/or control costs?

REACTION

S=1, U=6, O=1

U=4, O=1

U=1, O=1

S=1, O=1

U=1, O=1

S=1, U=1, O=2

U=2, O=2

10. Of these (*item 9*) strategies you used, which one was most important?

11. In 1998, did you sell any farm products to, or purchase any
farm supplies or services from, a farmer-owned cooperative?

U=3

12. In 1998, were you a member of a marketing (*or bargaining*) cooperative?

U=4

13. In 1998, were you a member of a farm supply or related service cooperative?

U=3

SECTION M

FARM HOUSEHOLD

REACTION	REACTION GRID	
	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

	REACTION	RECORDS	DATA
1. Are you (<i>the operator</i>) a hired manager for this operation?	R = 1		
2. Does your spouse (<i>the operator's</i>) also make day-to-day decisions for this farm/ranch?	R = 1		
3. Did you (<i>the operator</i>) work off-farm for wages or a salary in 1998?	R = 1		C = 1
a. How many weeks did you (<i>the operator</i>) work off-farm for pay in 1998?			
b. During the weeks you worked off-farm for pay, how many hours per week did you usually work off-farm?			C = 3
4. Did your spouse (<i>the operator's</i>) work off-farm for wages or salary in 1998?	R = 1		
a. How many weeks did your spouse (<i>the operator's</i>) work off-farm for pay in 1998?			C = 3
b. During the weeks your spouse worked off-farm for pay, how many hours per week did your spouse usually work off-farm?			C = 3
5. Which value code represents the cash income you (<i>the operator</i>) and all other household members received in 1998 from--			
a. all off-farm pay before taxes and other withholdings?	R = 1, U = 1		C = 7
b. net cash income from operating another farm or ranch?			C = 5
c. net cash income from operating any other business?	O = 1		C = 3
d. net cash income from cash or share-renting farm land <i>to others</i> including land rented from this and all other operations?	U = 2		C = 3
e. gross income from interest and dividends?	U = 2		C = 5, N = 1, W = 1
f. income from disability, military retirement, Social Security, unemployment, Veteran's benefits, other public retirement and public assistance programs?	S = 1		C = 4, W = 1
g. any other non-farm sources of income?	U = 1		C = 3, W = 1
6. Did any household(s) besides the operator's share in the net income of this operation during 1998?	R = 1, U = 1		C = 2
a. How many households besides yours shared in the net farm income of this operation?			
b. What percent of the net income did you (<i>the operator</i>) and your household receive?			
7. Which value code represents the total value of all non-farm assets <i>owned</i> by the operator and members of the operator's household on December 31, 1998?	S = 2, R = 1, U = 1		C = 5, W = 4
8. Which value code represents the total value of <i>all non-farm debt owed</i> by the operator and members of the operator's household on December 31, 1998?	R = 1, U = 1		C = 2

REACTION GRID		
REACTION	RECORDS	DATA AVAILABILITY
S: Sensitive-Answered	C: Computer	R: Readily available
R: Sensitive-Refused	T: Tax forms	C: Calculated
U: Did not understand	S: Settlement-Contract	N: Not available-No answer
O: Other	R: Loose Receipts	W: Not available-Wild guess
BLANK: No reaction	N: None used	
	BLANK: Ledger used	

9. Which value code represents how much this household spent in 1998 on--

	REACTION	RECORDS	DATA
a. food and household supplies, excluding utilities?	R = 1, O = 4		C = 9, N = 1, W = 19
b. household rent/mortgage, utilities, appliances and furnishings?	U = 1, O = 2		C = 13, N = 3, W = 9
c. non-farm transportation?	U = 2, O = 2		C = 9, N = 3, W = 11
d. medical expenses, insurances and contributions to retirement plans?	O = 1		C = 15, N = 1, W = 5
e. all other family living expenses such as clothing, education, hobbies, recreation, gifts, magazines, charitable contributions, etc.?	U = 1, O = 4		C = 8, N = 1, W = 15

Now you can put your books away, the difficult part of the interview is over. I'd like you ask for your opinions and ideas about the questionnaire and other ideas for collecting this type of information from you and other farm operators. <We will be coming back to your operation next year to collect this same information and would like to make it easier for you>.

1. Were any sections of the questionnaire confusing? YES=1

2. Did any sections seem out of order? YES=1

3. Were there any particularly difficult questions? YES=1

4. *(For calculated or not available questions), How is our questionnaire different from how you keep records? Refer to exact question or section.*

- a. *(For calculated or not available questions), Knowing that we will ask these questions next year, is there any way we can make it easier for you to provide this data?*

☐

YES- What would that be?

. YES=1

☐

NO

- b. Between now and next year, would it be possible for you to keep this information the way we asked for it this year?

☐

YES

☐

NO

. YES=1

Now we'd like to talk to you about ways we can make it easier for you to provide data next year.

Specifically:

5. a. Do you keep records similar to what we collected today at any place such as a university or FSA office? YES = 1
- (1) What types of data are reported there?
- _____
- _____
- _____
- (2) Could we access those records, with your permission instead of having to talk to you here? YES = 1
- b. If we left it for you, would prefer to fill out the questionnaire by yourself (instead of having an interviewer here)? YES = 1
- (1) Would it help to know exactly what questions we would be asking before we got here? YES = 1
- c. Do you think an interviewer could use your records to answer some questions so you do not have to sit with them the entire time? YES = 1
- (1) Would you be comfortable with that? YES = 1
- d. Can we use data you gave us in the past 3 months on other NASS surveys for this survey? YES = 1
- e. Are there any record keeping materials, software or assistance that we could provide to help you keep your farm records and make filling out the questionnaire easier? (*Give example that fits respondent.*) YES = 1
- f. If USDA gave you a laptop or computer and software, would you use it for your farm record keeping? YES = 1
- g. If you have a bookkeeper/accountant; can we talk to them to gather this information (at our expense if outside of operation)? YES = 1
6. Do you anticipate making any changes to your record keeping system in the next few years? (*For example: using a computer instead of a ledger.*) YES = 1

7. For people in this study, we are looking for ways to provide assistance with other USDA programs or agencies. Do you have any suggestions for this? YES=1

--

8. What do you feel are the benefits of participation in this survey?

9. We have sent you a lot of information and talked to you about this survey. Of all that information, what would be most effective in gaining cooperation from other farm operators?

CONCLUSION

ENDING TIME [MILITARY] [Please be precise.]

DATE:

ENUMERATOR NAME _____

EVALUATOR NAME _____



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